STATE OF VERMONT PUBLIC SERVICE BOARD

Docket No. 6860

Petitions of Vermont Electric Power Company, Inc. and Green Mountain Power Corporation for a Certificate of Public Good authorizing VELCO to construct the so-called Northwest Vermont Reliability Project, said project to include: (1) upgrades at 12 existing VELCO and GMP substations located in Charlotte, Essex, Hartford, New Haven, North Ferrisburg, Poultney, Shelburne, South Burlington, Vergennes, West Rutland, Williamstown, and Williston, Vermont; (2) the construction of a new 345 kV transmission line from West Rutland to New Haven; (3) the construction of a 115 kV transmission line to replace a 34.5 kV and 46 kV transmission line from New Haven to South Burlington; and (4) the redconductoring of a 115 kV transmission line from Williamstown, to Barre, Vermont

PREFILED SURREBUTTAL TESTIMONY OF DAVID RAPHAEL ON BEHALF OF THE VERMONT DEPARTMENT OF PUBLIC SERVICE

September 3, 2004

Summary:

The purpose of Mr. Raphael's surrebuttal testimony is to respond to rebuttal testimony offered by Terry Boyle with respect to areas for which Mr. Raphael has previously determined VELCO's proposal to pose an undue adverse effect on aesthetics, and to respond to various points raised in the rebuttal testimony of Jean Vissering, James Donovan, and Gail Henderson-King.

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Prefiled Surrebuttal Testimony of David Raphael

Please state your name, occupation, and place of employment.

1

Q.

2	A.	My name is David Raphael and I am a Professional Landscape Architect and
3		Planner as well as a Lecturer in the School of Natural Resources at the University of
4		Vermont. My primary place of employment is at LandWorks, 211 Maple Street,
5		Middlebury, Vermont.
6	Q.	Have you previously presented testimony in this docket?
7	A.	Yes. I presented testimony in the direct and reroute phases of this proceeding.
8	Q.	What is the purpose of your surrebuttal testimony?
9	A.	My testimony responds to rebuttal testimony offered by Terry Boyle with respect to
10		areas in which I have previously determined VELCO's proposal to pose an undue adverse
11		effect on aesthetics, and to Mr. Boyle's planting recommendations. I also respond to
12		various points raised in the rebuttal testimony of Jean Vissering, Sansea Sparling, James
13		Donovan, and Gail Henderson-King.
14	Rebi	uttal Testimony of Terry Boyle
15	Q.	What is your response to Mr. Boyle's rebuttal testimony regarding the West Rutland to
16		Whipple Hollow Road portion of the proposed 345 kV line, page 4 lines 14-21 and Exhibit
17		Rebuttal TJB 1-1?
18	A.	One cross section and two other tested points are not sufficient to show that a stripe
19		will not exist. We also do not know in how many places the slope exists at 35% or
20		greater. In addition, the height of trees will vary along the rest of the corridor. There is
21		also the distinct possibility that trees remaining after a clearing will be exposed and thus
22		more susceptible to windthrow and loss. Finally, a single pole configuration, as in my

1		original proposal, will present less mass to the viewer. I stand by my original
2		recommendations for this area.
3	Q.	What is your response to Mr. Boyle's rebuttal testimony regarding the Whipple Hollow
4		Road crossing, page 4 line 25 through page 5, line 4 and Exhibit Rebuttal TJB 1-2?
5	A.	I believe that planting will be necessary to mitigate the view to the south where two
6		pole types will co-exist in a staggered fashion. The traveler's eye is definitely drawn to
7		this open space. The view to the north is less of a problem. The planting does not
8		necessarily have to be hedgerow type as I initially recommended but could be more akin to
9		street tree type. In addition, Mr. Boyle's testimony makes no mention of substation
10		screening, which is also recommended in my initial report. Also, the proposal for
11		selective clearing means that we do not know, after clearing, what planting will be left.
12		There is no delineation of how much clearing will be made.
13	Q.	With respect to Mr. Boyle's rebuttal testimony, p. 5, lines 7-8 and Exhibit Rebuttal TJB
14		1-3 (Otter Creek Crossing), has VELCO correctly implemented your recommendations?
15	A.	Yes, VELCO has correctly represented my understanding of the mitigation at Otter
16		Creek Crossing. In addition, I must stress that I believe that the relocation of structure 145,
17		shown as a potential relocation by Mr. Boyle, is important to achieving adequate
18		mitigation.
19	Q.	With respect to Mr. Boyle's rebuttal testimony, p. 5, lines 11-12 and Exhibit Rebuttal TJB
20		1-4 (Arnold District Road), has VELCO correctly implemented your recommendations?
21	A.	No. At Arnold District Road the proposed mitigation shown on TJB1-4 does not
22		go far enough to the north. Recommended in my initial report were large tree plantings (not
23		apple trees) continued to the north on both sides of the road, for approximately another 150
24		to 200 feet.

1	Q.	What is your response to Mr. Boyle's rebuttal testimony, p. 5, lines 15-19 and Rebuttal
2		TJB 1-6 (Leicester-Whiting Road)?
3	A.	I do not agree with his conclusions and shrubs here will not satisfactorily screen
4		the towers so close to the road. Two alternatives would be 1) use columnar trees or
5		2) move the distribution poles off the road to allow for full street trees. In addition, Mr.
6		Boyle shows minimal mitigation on the north side of the road rather than extending the
7		street tree planting further to the west so as effectively screen the views of the existing and
8		proposed H-frame structures.
9	Q.	Turn now to Mr. Boyle's rebuttal testimony on pages 5-6, A15 and Exhibit Reb TJB 1.61
10		(Route 7, W.Salisbury Rd.). Do you continue to agree with your original proposal or are
11		you satisfied with Mr. Boyle's recommendations?
12	A.	I am not satisfied with Mr. Boyle's recommendations. The plantings proposed will
13		be irregular and seem out of place here with the open viewshed from the road. In addition,
14		there is no mitigation recommended on W. Salisbury Road as it heads east towards Route
15		7. I hold to my original proposal which actually improves the open space view along
16		Route 7. I believe that the tangent structures could be located to the north of W. Salisbury
17		Road and effectively screened using the willow type plantings Mr. Boyle has suggested. I
18		do believe that the plantings of willows as shown in TJB 1-6.1 will be effective mitigation
19		at this location on the north side of West Salisbury Road for viewers on Route 7 if large
20		willows are employed.
21	Q.	What is your response to Mr. Boyle's rebuttal testimony at p. 6, A16 and Exhibit Reb TJB
22		1-7 (Kelly Cross Road)?
23	A.	This mitigation proposed by VELCO does not reflect my recommendations at all
24		and I cannot agree with it. In fact plantings that are useful for screening under the current
25		corridor are going to be removed, or so it seems from a review of TJB 1-7. It is difficult
26		to understand why Mr. Boyle has proposed hedgerows elsewhere (e.g. at

2		mitigation in this location.
3	Q.	With respect to Mr. Boyle's rebuttal testimony at page 6, A18 and Exhibit Rebuttal TJB
4		1-9 (Route 7/125 intersection), has VELCO correctly implemented your recommendations?
5	A.	VELCO has made a good effort but has not fully satisfied my recommendations. It
6		has not proposed matching or removing one of the towers in the triangle. Also, the planting
7		proposal needs refinement, to ensure its effectiveness, through field confirmation of
8		planting locations. Further clarification is needed on the precise sizes of trees and the
9		actual species and cultivar being employed. In addition, consideration should be given to
10		retaining more of the existing vegetation, rather than having to come back and re-plant
11		where vegetation has been removed. If removal of vegetation for new structures can be
12		reduced, then that will allow for retention of the existing mixed species of vegetation,
13		which will serve as a more effective screen than individual new small plantings. I would
14		also note that VELCO could explore my recommended alternative option of rerouting the
15		corridor.
16	Q.	With respect to Mr. Boyle's rebuttal testimony, page 8, line 15 (A21, Painter Road), do
17		you agree with Mr. Boyle that Painter Road has sufficient cover to provide screening?
18	A.	I do not agree. I still believe that Painter Road crossing needs plugs. I am
19		concerned that there are some locations where VELCO has agreed that planting hedgerows
20		is effective (such as along Route 7, at Leicester-Whiting Road, etc.) and yet there are other
21		areas like this location where it resists that approach.
22	Q.	Regarding Exhibit Rebuttal TJB 1-12 (Halpin Road), has VELCO correctly implemented
23		your recommendations?
24	A.	Generally this proposal works, although there is no indication of screen plantings

Leicester-Whiting, Exhibit TJB 1-5) but not here. Hedgerow plantings would be useful

1		for individual back yards or at the crossing of the driveway, and such plantings should be
2		proposed. Aside from that it does follow my recommendations.
3	Q.	With respect to Mr. Boyle's rebuttal testimony, page 9, A23, do you now agree with Mr.
4		Boyle that planting in the open agricultural landscape at River Road is not appropriate?
5	A.	Mr. Boyle's rebuttal testimony does not satisfy my concerns in this area. I believe
6		the street tree plantings are needed to mitigate the view of the transmission line and
7		corridor. I strongly disagree with Mr. Boyle on the issue of plantings in agricultural fields.
8		The plantings proposed can be at the edge of the right of way and can be designed in a
9		manner so as to not lose any appreciable arable land. I also believe that any loss of
10		maneuverability for farm vehicles would be minor and that the benefit of the aesthetic
11		mitigation would outweigh any such loss.
12	Q.	With respect to Mr. Boyle's rebuttal testimony at page 9, A24, do you now agree with Mr.
13		Boyle that planting in the open agricultural landscape at Hunt Road is not appropriate? If
14		not, why is it needed and appropriate?
15	A.	As I have stated, street tree plantings are needed at locations such as the Hunt Road
16		crossing to mitigate the view of the transmission line and corridor. I believe that the
17		roadside plantings can be at the edge of the right of way or even within the right of way if it
18		is wide enough and can be designed in a manner so as to not lose any appreciable arable
19		land, given, in particular, the topography that exists in many of these locations. I do not
20		believe that the plantings will impinge on the growth and harvesting of hay or corn, which
21		are typical crops in these locations.
22	Q.	Aside from the issue of plantings in agricultural fields, what other concerns do you have in
23		response to Mr. Boyle's rebuttal testimony at page 9, A24 (Hunt Road)?
24	A.	I believe the view from the road is important in these locations because the size and

the scale of the proposed new H frame structures will significantly add to the existing

1		visual impact and clutter from the current line. A single pole will also reduce corridor
2		width and clearing. More poles of lower height would be better as well.
3	Q.	With respect to the rebuttal testimony of Mr. Boyle, pp. 9-10, A26 (Town Hill Road), do
4		Mr. Boyle's statements of what he thinks should be done correctly implement your
5		recommendations?
6	A.	In general Mr. Boyle has followed my recommendations with the caveat that the
7		selection of plant materials will be critical. I would propose species and cultivars that
8		would be able to grow as high as possible without having to be cut. Not all shrubs will
9		grow high enough. Hedge maple is an example of one variety that could grow to a
10		reasonable height without potentially having to be trimmed. Having said this, I would also
11		suggest that maybe some taller species should be used at some of these critical crossings
12		and then maintained at the highest height possible.
13	Q.	With respect to the rebuttal testimony of Mr. Boyle, p. 10, A27 and Exhibit TJB Reb 1-13A
14		and B (New Haven substation), has VELCO correctly implemented your
15		recommendations?
16	A.	VELCO has not implemented my recommendations for the Route 17 side of the
17		substation. As I proposed initially, I believe the substation needs berming along this side.
18		See Exhibit DPS-DR-4. I also believe the berms should be done in a more natural and
19		gradual manner, rather than as designed as very tight, artificial elements.
20		
21	Q.	With respect to Mr. Boyle's testimony, p. 10, A28 (building the New Haven 345 kV
22		substation at an alternate location to the southwest and leaving the existing substation in
23		place), do you agree with Mr. Boyle that this proposal would be an aesthetic improvement
24		and that the Board should weigh aesthetic benefit against cost?
25	A.	This is a challenging question. I believe that the alternate location for the 345 kV
26		facilities, from an aesthetic perspective, would be preferable and easier to mitigate, and

would be responsive to community concerns. I am not sure, however, that there would be a significant aesthetic gain or reduction of aesthetic impacts. I also continue to believe the proposed expanded substation at the existing site can be adequately mitigated with the screening and berming I recommended in my direct testimony. I do agree with Mr. Boyle that the aesthetic benefit should be weighed against the additional cost, but the question of cost is beyond my purview as a landscape architect.

Q. With respect to the rebuttal testimony of Mr. Boyle, pp. 10-11 and Reb. TJBA 2-1 (lines leaving New Haven substation/Route 17 crossing), do you continue to maintain your proposal for plantings along Route 17?

A.

Q.

A.

The plantings were my second choice here for mitigation and will not be as effective as my other alternative of moving the existing and proposed lines. They also may have the negative result of affecting the view for the traveler. Thus I am now of the opinion, having visited the site many times, that the best way to avoid an undue, adverse impact from this proposed new line and still have overhead construction is to relocate both existing and proposed lines as I originally proposed. Nonetheless, the plantings, if carried out as I have envisioned, would also mitigate the impact so as not to be undue, adverse, rather just adverse.

Again with respect to Mr. Boyle's rebuttal testimony, pp. 10-11 and Reb. TJBA 2-1 (lines leaving New Haven substation/Route 17 crossing), do you believe that moving the proposed line, but not the existing line, to the new location you recommended for both lines is sufficient?

I do not believe that moving only the proposed line is sufficient. Even though moving the line would avoid additional impacts at the height of land, the combination of the existing line in place and the proposed line in a new location in effect creates two areas of aesthetic impacts rather than only one. Traveling west, the viewer would experience the first line and its visual intrusion, and then within a matter of seconds at a speed of 45 to 50

1		miles per hour, the second line would be readily apparent along with its visual impact. By
2		co-locating the two lines in the new corridor, the aesthetic impact at the height of land is
3		avoided and, in fact, aesthetics are improved. There would be only one crossing of the
4		corridor versus two, and the corridor would be located in the area that would obstruct the
5		view to the east in a very minimal fashion, while limiting the intrusion/obstruction to the
6		west view to as little as possible.
7	Q.	With regard to Mr. Boyle's testimony at page 15, A43 and Ex. Reb. TJBA 2-5 (Ferrisburgh
8		substation), has VELCO correctly implemented your recommendations for the Ferrisburgh
9		substation and vicinity?
10	A.	VELCO has not implemented my recommendations completely. I proposed street
11		tree plantings along the road in both directions, and on both sides of the road, which has
12		not been proposed. There are no plantings proposed except at the substation itself and
13		along the railroad. The proposed row of cedars on the east side of the railroad right of way
14		will satisfy concerns I had for westbound travelers and their view, but I still believe
15		roadside plantings on the west side as one approaches the substation and corridor are
16		desirable, as well as at the substation site itself.
17	Q.	With respect to Mr. Boyle's rebuttal testimony at page 15, A45 (Thompson's Point Road),
18		is Mr. Boyle's response to your direct testimony satisfactory?
19	A.	It is satisfactory only in part. I believe street trees should be planted on both sides
20		of the road.
21	Q.	Concerning Mr. Boyle's rebuttal testimony on page 16, A48 (Greenbush Road crossing),
22		has VELCO correctly implemented your recommendations?
23	A.	In general VELCO has implemented our overall recommendations. However, a
24		critical concern here is placing poles so as to minimize their visibility from the Demeter
25		Park view from the brow of the hill west of Route 7. This placement need to be planned on

1		paper and then confirmed in the field with some means of testing actual proposed pole
2		locations so as to ensure that screening or buffering that exists is used to the fullest extent
3		possible.
4	Q.	What is your response regarding Mr. Boyle's testimony at page 17, A49, regarding the
5		Bostwick Road bridge?
6	A.	I generally agree with his response with the added emphasis that traveling
7		southwest along the road, once an individual clears the bridge, the line will not be an
8		intrusion or a factor in the view. Traveling northeast along Bostwick Road, there are lines
9		of existing small trees which effectively mitigate the current line and will continue to do so
10		if the upgrade is proposed; the only recommendation here is to close as small gap in this
11		street tree line to the south of the road as one approaches the bridge.
12	Q.	Concerning Mr. Boyle's testimony at page 17, A49 and Exhibit TD-Reb-3 (Meach Cove
13		area), do you agree with what Mr. Boyle and VELCO are proposing in this answer?
14	A.	Generally, I agree with the Meach Cove reroute proposal with the following
15		caveats: 1) careful pole placement and minimizing pole heights are critical to take
16		advantage of existing buffering from topography and vegetation and 2) the least amount of
17		clearing that is absolutely necessary must be enforced to ensure that the visual impact will
18		be minimized.
19	Q.	With respect to Mr. Boyle's testimony on page 17, A50 and Exhibit Reb. TJBA 2-6
20		(Harbor Road Substation), has VELCO correctly implemented your recommendations?
21	A.	Yes they have correctly implemented my recommendations, with the qualification
22		that I believe large trees should be planted in this location.
23	Q.	Regarding Mr. Boyle's rebuttal testimony on page. 18, A52 and Exh. Reb. TJB-2-7 (Bay
24		Road), is VELCO correctly and fully implementing your recommendations?

1	A.	In general they are following initial recommendations. However, further
2		clarification is needed to address what is meant by "small street trees" (Exh. Reb. TJB 2-
3		7) and I believe there should be some screening of the poles near to the residence on the
4		north side of Bay Road. The prospect of co-location will be substantial improvement.
5	Q.	What is your response to Mr. Boyle's rebuttal testimony at p. 18, A53, regarding the
6		Queen City substation?
7	A.	I disagree with his conclusion to propose no planting at this time. As stated in my
8		initial testimony, I believe planting and berming are necessary to mitigate aesthetic impacts
9		to the adjacent residences.
10	Q.	What concerns do you have regarding Mr. Boyle's planting recommendations on p. 19,
11		A54, of his rebuttal testimony?
12	A.	I have several concerns.
13		1) A one year guarantee is not sufficient. As the plantings are critical components
14		of the mitigation measures being proposed, VELCO must provide assurance that they will
15		be established satisfactorily and maintained over time.
16		2) VELCO needs to employ the tallest shrubs possible where screening is
17		proposed under lines. A sampling of the varieties proposed with specific cultivars and
18		their heights is listed below. For example, these species, under ideal conditions, will grow
19		to a total height of:
20		15' Salix discolor/Willow
21		35' Acer campestre/Hedge Maple
22		10' Cornus racemosa/Gray Dogwood
23		10' Cornus stolinifera/Dogwood
24		30' Viburnum Lentago/Nannyberry
25		12' Viburnum Opulus/Snowball Viburnum
26		12' Viburnum lantana/ Mohican Wayfaringtree Viburnum

In fact, many of these species, from our experience in the Champlain Valley, will not grow this high. The dogwoods, for example, will only reach 6 feet typically, maybe as high as 8'. We would hope that some of the varieties listed in DPS-DR-1, pp. 148-149 may provide some additional plant species for consideration.

Often there are cultivars that could be considered as well. Thuja Occidentalis 'Techny' (10-15'), or 'Pyramidalis' (12-25'), for example, provide alternatives which could be underplanted and not require topping or removal as they grow. In some instances, even non-native or non-local species should be considered. White spruce, native to higher elevations in Vermont, is an excellent screen planting, much better than white pine as it does not lose its lower branches typically with sufficient light, and is tolerant of a variety of conditions.

Rebuttal Testimony of Jean Vissering

- Q. On page six, A12 of her rebuttal testimony on behalf of the Addison County Regional Planning Commission ("ACRPC"), Ms. Vissering proposes burial of the 345 kV transmission line in the area of "the fields adjacent to Route 7 across from the entrance to the village of Salisbury and the West Salisbury Road crossing in Salisbury." With respect to the placement of the 345 kV line in an overhead configuration in this area, please state succinctly why you believe that, with the mitigation measures you have previously proposed, the 345 kV line will not have an undue adverse effect on aesthetics.
- A. I believe that with the combination of screening with hedgerows to the north of the West Salisbury Road crossing on the west side of Route 7 along with the relocation route I have proposed to the south of West Salisbury Road will: 1) remove the corridor from the immediate view of the traveler, 2) set the corridor far enough back to take advantage of backgrounding and existing wooded areas to hide the poles and conductors, and 3) actually improve and open up the view of the meadows, farmlands and open space which exists to the west of Route 7 in this area. Taken together, these measures would satisfy the Quechee test and avoid an undue, adverse, determination.

On page six, A12 of her rebuttal testimony on behalf of the ACRPC, Ms. Vissering proposes burial of the 345 kV transmission line in the area of "the Route 7 and 125 intersection and crossing in Middlebury." With respect to the placement of the 345 kV line in an overhead configuration in this area, please state succinctly why you believe that, with the mitigation measures you have previously proposed, the 345 kV line will not have an undue adverse effect on aesthetics.

A.

Q.

A.

I believe that, with sufficient planting of appropriate material in appropriate locations, careful pole location, and retention of existing vegetation wherever possible, these measures together would provide enough of a buffer and mitigation approach to avoid the undue adverse determination. So too would rerouting the corridor with appropriate screening, which I initially recommended as an option. It is hard to recommend burial of the transmission line as the only solution here when much of the clutter already exists with the combination of both distribution and transmission lines in the vicinity of the intersection.

Q. On page six, A12 of her rebuttal testimony on behalf of the ACRPC, Ms. Vissering proposes burial of the existing and proposed 115 kV transmission lines in the area of "the Route 17 crossing in New Haven." With respect to the placement of the 115 kV line in an overhead configuration in this area, please state succinctly why you believe that, with the mitigation measures you have previously proposed, the addition of the proposed 115 line will not have an undue adverse effect on aesthetics.

I believe that the relocation route I have proposed would actually result in an improvement of the existing viewshed to the Green Mountains when traveling eastbound on Route 17, by removing the lines form the height of land, opening up the view, and putting it in a location that has less visual impact. There is no question that undergrounding would be an effective aesthetic mitigation measure, but an undue adverse determination can be avoided with the above-ground approach I have outlined.

- Q. On pages 7-8 of her rebuttal testimony on behalf of the ACRPC, Ms. Vissering provides a list of "attributes of areas of scenic sensitivity," which she uses to compare whether different sites deserve the same level of mitigation, yet on examination during the reroute hearings you stated that you believe the Quechee test is sufficient. 6/17/04 tr., Vol. 2 at 81-3. Do you believe that Ms. Vissering's list of attributes adds significantly to the factors that the Quechee test considers?
 - A. Ms. Vissering's attributes simply represent a more detailed set of questions an aesthetic expert would flush out and need to answer as part of the Quechee test. They provide a good checklist but do not add appreciably to the basic elements of Quechee. The attribute regarding local building permits may be useful in understanding community response and practice with regard to projects, but would not constitute a clearly written community standard, in my understanding of what is intended by that "prong" of the test.

Rebuttal Testimony of Sansea Sparling

- Q. The rebuttal testimony of Sansea Sparling attaches an Exhibit A which shows two alternative sites for the New Haven substation. On cross-examination during rebuttal hearings, Ms. Sparling stated that New Haven's preference would be to build the new substation facilities at one of these locations and to move the existing substation to that new site. 8/6/04 tr. at 44. Do you believe that such action is necessary in order to ensure that the project does not have an undue adverse effect on aesthetics?
- A. No, I do not. Please refer to my previous answer with regard to the siting of the substation.

Rebuttal Testimony of James Donovan

Q. With respect to the rebuttal testimony of Mr. Donovan on behalf of the Town of Charlotte, page 1, A3, Mr. Donovan takes issue with your alternate overhead proposal in the area of the Waldorf School and Ferry Road, stating that it will pose an undue adverse impact on

aesthetics. Please state succinctly why you believe that your proposal will not have such an effect.

There are several reasons why I believe my proposal would avoid an undue adverse impact on aesthetics. First, if constructed as I have proposed, the line would not impact the impact the scenic view, which begins as a narrow corridor as one descends the hill from the Ferry Road/Greenbush Road intersection. The poles proposed would be outside of the view here. The view does not open up until the westbound traveler is past the corridor. Second, when traveling eastbound, the taller poles would be backgrounded by the hillside and existing distribution lines and other foreground elements intervene to greatly de-emphasize the poles that would be placed on either side in my proposal. They really won't even be visible until one approaches the entrance to the commercial industrial development on the south side of Ferry Road. Third, the eastbound direction does not constitute a outstanding or scenic view with all the development and utility clutter that already exists here.

Rebuttal Testimony of Gail Henderson-King

A.

- Q. With respect to Ms. Henderson-King's rebuttal testimony, page two, lines 22-23, Ms. Henderson-King states that you believe that the visual impacts of the so-called "Reroute onto the Meach Cove Trust lands" will not be adverse. On page three, lines 27-28, Ms. Henderson-King characterizes you as asserting that "the visual impacts of the ANR Reroute can be mitigated sufficiently with landscaping." Are these accurate characterizations?
- A. No. In my reroute report, I stated that screening will be desirable to reduce the visual impact to the view *from* the Arbors development across the meadow. <u>See DPS-DR-10</u> at 47. As to the ANR or Meach Cove reroute generally, my opinion, as expressed previously in this docket, is that the visual impacts of the Meach Cove reroute will not be unduly adverse provided that mitigation measures are taken, including appropriate pole height and placement, and careful clearing, as well as adequate screening.

Q. With respect to Ms. Henderson-King's rebuttal testimony, page two, lines 22-23, Ms.

Henderson-King states that you contend that the visual impacts of the Shelburne Substation will be minimized with additional plantings. Is this characterization accurate?

Not completely. While I do believe plantings are necessary to address those impacts, my reroute report also raises concerns about the number of parking spaces and states that a side entrance along with plantings will satisfy the Quechee test. <u>See</u> DPS-DR-10 at 49.

With respect to Ms. Henderson-King's rebuttal testimony on page 5, lines 13-14, that she does not believe undergrounding necessarily should be the last alternative, please answer the following: Suppose that, in a given area, two mitigation measures each are sufficient to ensure that a project's impacts will not have an undue adverse effect on aesthetics. One mitigation measure, however, is far more expensive than the other mitigation measure. In that circumstance, would a reasonable person undertake the more expensive or the less expensive mitigation measure?

I believe that a reasonable person would opt for the least expensive effective measure to accomplish the mitigation necessary. I have experience working for a number of communities with regard to aesthetic improvements along well traveled routes and main streets. One of the first options that communities want to explore is the possibility of burying utility lines. We are asked to provide cost estimates and consult with local utilities to provide a sense of this cost. When presented with the potential cost of burying utilities along a road corridor or elsewhere in the community, the community concludes that the cost is prohibitive for the improvement that will result, and always decide not to pursue this option. They cannot justify the cost when other improvements are available, will have impact and will be affordable, such as effective street tree planting.

- Q. Does that conclude your testimony?
- 26 A. Yes, it does.

A.

Q.

A.